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plenty of room to cultivate the taste for decorative tree planting along all the roadsides in Michigan. The yard and grounds of the farmer furnish the canvases on which pictures of beauty can be painted that will give more pleasure than all the grouping that can be accomplished elsewhere. Let the trees along the highways be planted within it, and eight feet from the fence, in as straight a line as possible so that the traveler need not stop to enjoy the shade, but make it continuous to the end of his journey. A. C. G.

HERDS AND FLOCKS IN GENESSEE COUNTY.

GRAND BLANC, Feb. 20, '82.
On Tuesday last, by invitation, we visited the farm of Mr. Nelson Goodrich, in the town of Atlas, Genessee County.

We were very cordially received, and shown over the farm and stock by the proprietor. This farm is the old homestead, and was settled on by his father, Moses Goodrich, 46 years ago. It now contains 240 acres of good tillable land, with good house, barns, windmill, and every convenience necessary for comfort. It has 15 acres of apple orchard, one acre in peaches and grapes, and 43 acres sown to wheat that promises a heavy crop.

On entering the barnyard we found about 25 head of cattle, all grade Short-horns, three cows of which may be easily mistaken for pure bred. At the head of this herd stands the pure bred bull, Fred Douglass, by Stuart's Independence, dam a Kentucky cow. We saw but one of his get, a light roan calf, which looks more like Independence than its sire or dam, showing the strong breeding qualities of that bull. Mr. Goodrich feels justly proud of his bull; he is a deep red, and judging from this his first sample, is destined to do good work. He has a good shoulder, handles very nice for the care-taken, head rather short with broad forehead, walks square, with quick step; rump well laid up; quarters well developed, and with a coat fine, thicker and shorter than we generally find on a red bull.

We then went to a large straw yard in which running loose were a number of brood mares, bred to Spencer's Mambrino Whip, also two Whip colts and a Percheron colt that may be worth something yet if it changes with growth. Among the brood mares were two Bashaw mares by Onward, that were bred to Mambrino Gift, from which Mr. Goodrich has two four year colts just broke to harness. They are both bays, about 16 hands high, with heavy manes, and tails, black points, heads long and clean cut, weight about 1,050 each, and with a style and action difficult to beat.

In the sheep department we were rather disappointed; it would stand a grand thinning out; he has about 150, at the head of which stands a Lyman Cate ram which, when the culls are taken out, will do good service in this flock, as he has a great many well bred sheep.

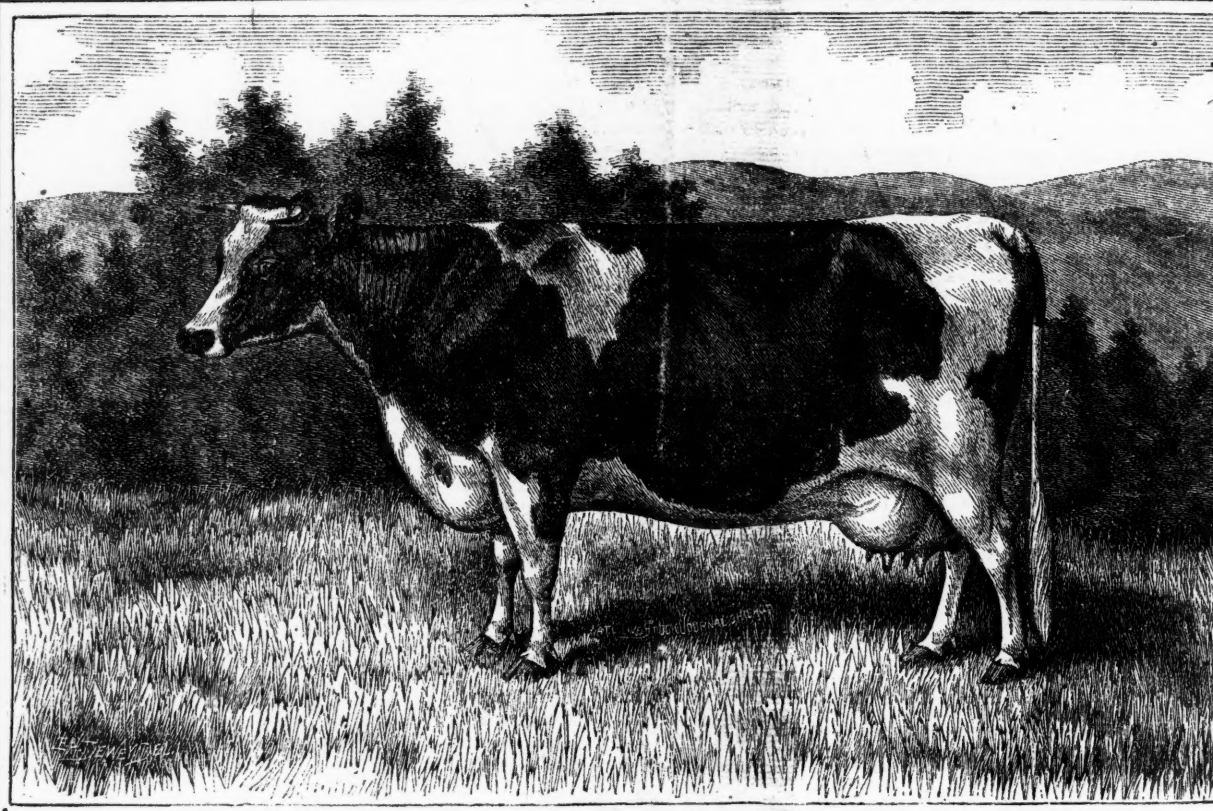
In the hog line the Berkshires are the favorite, his boar, a Dom Pedro, was purchased of Gustin, of Bay City, and needs a further comment.

After doing justice to a good dinner, the Mambrino Gift colts were hitched up, and we were taken over to our old friend Wm. Carpenter's place (about a mile north of Mr. Goodrich's), whom we found at home, fat and hearty as ever, and with a grip for the writer that we wished a little less muscular.

This farm consists of about 245 acres of good arable land, with 40 acres of the best wheat on it that we have seen. The buildings are nearly all new, well painted and consist of grain, hay, sheep and horse barns, tool, corn, hog, ice and wood houses, all with cupolas and tasty ornaments, reminding the writer, when seen from a distance, of one of those little Turkish villages with their glistening minarets he so often saw while traveling in European Turkey. The dwelling house is roomy and modern, and altogether the place presents an air of neatness, comfort, and good judgment. The stock on this farm consists of nine horses, two of which are Clydes, and all are kept with an eye to service instead of beauty; 26 head of cattle, mostly grade Short-horns, and a few bred the coming season to Goodrich's Fred Douglass; and 200 sheep, grade Merinos. In this flock also there is plenty of chance for improvement, which Mr. Carpenter seems to realize, as he has now at the head of his flock a D. P. Dewey ram that is a great improvement on what he has used heretofore. Mr. Carpenter gave us some figures which may be interesting and useful in helping farmers to determine whether they had better sell their pork live weight or butcher it. They can be depended upon as accurate. He weighed five hogs whose live weight aggregated 1214 lbs; after dressing them he weighed 1001 pounds, about one-sixth shrinkage.

After spending a most enjoyable day we arrived home, feeling that it does a man good sometimes to go around among his neighbors and exchange ideas, sympathy and thought.

On Thursday, by request, we visited the Short-horn stock farm of Mr. Thomas Shaw of Mundy (Rankin P. O.). This



Holstein Cow Jacqueline, Imported and Owned by Geo. E. Brown & Co., Aurora, Ill.

gentleman's natural love of Short-horn cattle makes him a breeder of no mean type. On arriving there we were first shown his pure bred bull, Knight of Brant from Bow Park, a roan calved by Imp, 1877, out of Rose of Lucknow by Aug. King of the Ocean 8465. He is in good breeding condition, looking about as well as he did last fall when he carried off the blue ribbon at the Northeastern and Genesee County fairs. He is full of life, eye bright and clear, short, strong neck, head small, horns well set on, brisket deep and prominent, crops full, leg short and straight, and a good thick short coat and a very pleasant handler.

We then saw his yearling bull Snyder Boy (roan) by Baron Booth, he by Lord Aberdeen, the centennial prize winner. This young bull is intended to take the place of Knight of Brant at the head of Mr. Shaw's herd, and by his appearance and breeding, will no doubt fill the bill. His dam Matchless, by Prince of Elmira, took first prize as three year old at the Northeastern fair and is now owned by Mr. Shaw; she is a perfect beauty. We next noticed the Bates cow Blanche; she is too well known to need comment, but she has a bull calf by Knight of Brant that is worth a few miles travel to look upon. Myrtle, a two year old prize winner comes next; she is a light roan, and a model of symmetry; dam Lulu 3rd; sire Knight of Brant. Merry Christmas, coming two years, dam Blanche, sire Knight of Brant, together with May Queen, another beautiful two year old, a rich roan, are enough to give the Knight of Brant a name as a getter of fine stock that will be carried away down for years to come. It is useless for me to particularize each individual animal, but any lover of fine stock will be amply repaid by a visit to Mr. Shaw's farm. He has 14 head of pure bred Short-horns and a few grades, and he has stock of all ages to sell. His stock all looks well, not fat, but smooth and clean; are all roans of different shades, and as a herd present a fine appearance.

The dinner bell having rung, Mr. Shaw perceived a lack of interest on the writer's part, whereupon he took the hint, and after introducing us to his wife, and family, we sat down to a dinner that showed they have good cooks somewhere around there. Either our appetite was very good or the baked chickens were extra nice, but either way we did them justice.

Mr. Shaw, like some others, has not yet awakened to the importance of sheep breeding, and in Mundy, if I mistake not, there is no breeder of thoroughbred Merinos, an excellent opening for some lover of good sheep. In conclusion I will say that our busy season is fast approaching, and probably it will be many months before you again hear from C. C. CAMERON.

SORGHUM IN MICHIGAN.

EAST SAGINAW, Feb. 21st, 1882.
To the Editor of the Michigan Farmer.

Thinking there might be among your subscribers some who feel an interest in cane growing, and others who may not at present, but might be induced to do so if there could be anything advanced that would tend to remove the old deep-rooted prejudice against sorghum, and pretty clearly show that it is not only a sure, but profitable crop in this State, I feel like giving what little experience I have had and its results.

Some three years ago, in reading the report of the Commissioner of Agriculture at Washington, and noting the experiments on sorghum cane, and the successful results of those experiments in producing a very fine article of cane sugar, with its ready crystallization, I became interested and concluded to try it. After experimenting in a small way in 1880, in 1881 I put in about three acres of Early Amber cane. On account of the unfavor-

able conditions of the season the stand was much less than it would have been had we had ordinary weather; in fact it was what I would call thin, and looking rather discouraging, particularly to an amateur in the business. After receiving about the same culture and care as that given to corn, it was cut and drawn in about Oct. 1st. Other business requiring my attention about that time it was neglected, and no attempt made to work it up until some three weeks after.

On commencing to grind the cane I found that the juice tested only 85° Baume saccharometer, much less than in my previous experiments. All circumstances up to the present, non-success in getting a good stand of cane, and the low degree of juice, indicated failure, and I certainly felt as if that was to be the result. I proceeded, however, with all the knowledge I had obtained, as to the best process for the proper defecation, or clarification and evaporation of the juice, and the outcome was so far beyond my expectations, that to say that I was astonished would not be expressing the sensation. On finishing I found that I had somewhere in the neighborhood of four hundred gallons of as good syrup as anyone would wish to use, entirely free from the old objectionable sorghum "twang," and crystallizing quite freely when concentrated to the proper consistency for that purpose. I found a ready sale for the whole, all to consumers at 50 cents per gallon, and the cry is for more.

In addition to the above there was considerable good fodder, and the seed in my case I should judge to be about twenty five bushels to the acre, which I learn from analysis is but very little inferior to corn for feeding purposes. I am quite confident that in ordinary seasons, with proper culture, and care in the manufacture of the syrup, 175 to 250 gallons can be raised per acre.

The following is a fair computation of the cost and profit of an acre of cane grown on any land that will produce a fair crop of corn:

Dr.	Cr.
Planting, harrowing, and marking.....	\$2 00
Hoeing.....	1 00
Working twice with cultivator.....	4 00
Stripping, topping, and cutting.....	3 00
Hauling.....	5 00
Manufacturing 175 gals. at 18c. per gal.....	31 50
Total.....	\$50 50

175 gallons at 50 cents per gallon.....	\$37 50
25 bushels of seed at 50 cents.....	12 50
Fodder.....	5 00
Total.....	\$105 00

Net profit per acre.....\$54 50

Compare this net result with the profits of an acre of corn, oats, wheat or potatoes, and I think that the farmers of Michigan can readily see, that if there is not really a bonanza in it, there is at least a probability that the balance of the account will not be on the wrong side. And then again, to the farmer that grows only one-half, or even one-eighth of an acre, it will be a satisfaction for him to know what he has in his barrel, and that the pure syrup on his table is not the vile compound of corn syrup and acids which so largely constitute the commercial syrups in our markets.

With this communication I mail you a sample of the syrup and sugar made by me, and if you do not pronounce the syrup sweeten itself, and the sugar equal to any grade New Orleans, I am sure you will at least say that it is first rate for northern Michigan.

THOMAS SAYLOR.

MR. EMERY CROSBY wants some one who has had experience in that direction, to inform him through the FARMER of the results of breeding Shropshires on Merinos or Merinos on Shropshires. Mr. Garlock and Mr. Moore of this State, and Doc. Smead of New York, have given very full information on this subject, if Mr. Crosby will refer to their several communications. If any of our readers have something interesting or new on this point inquired about, we should be pleased to hear from them.

MIDDLE WOOL SHEEP.

To the Editor Michigan Farmer:

I have read, with quite an interest, the discussion called out in your paper on middle wool sheep. Five years ago I made a venture in sheep, thinking only on the wool side of the question and being told by Shropshire breeders that the middle grade sheep sheared from seven to eight pounds per head, I invested in a number of that class. They had first class care, and when shearing time came instead of seven or eight pounds, I had a fraction over four. I kept them three years; every year their fleeces decreased in weight. I sold them and invested the proceeds of sale in grade fine wools, giving them the same care; last year they averaged seven pounds.

Now, judging from my own experience, on farms of one hundred acres or less, fine wools put the most money in one's pocket at the end of the year.

I think the future over middle wool sheep (especially in our county, Washtenaw) is about over. I would like to ask friend Moore where are the sheep he sold in this county three years ago? Where is their increase?

Now I understand he is trying to open up a market with the country beyond the "muddy Missouri." I hope the purchasers of his grade ewes will never wish for them as pitiful an ending as the owners of those despised "old fine woolled ewes" did for them. A SUBSCRIBER, SUPERIOR, Mich., Feb. 24, 1882.

A Corn Crop.

To the Editor of the Michigan Farmer.

It may be that you are tired of corn, but I have seen some statements in your paper of crops grown by different parties, it may not be amiss to give my plan of raising corn and following it with wheat. Last April myself and son came into possession of a farm, and we concluded to put in about 27 acres of corn. The land was poor and very sandy, so much so that if you could find a grasshopper he would be sitting on a dry weed with tears in his eyes looking for something to eat. Eighteen acres of the land had not been plowed for three years, and was a perfect mass of sand weeds. We got it plowed about the middle of May, dragged it once, and marked it 4 by 4 feet. The next field of about six acres was in corn stubble; we plowed and dragged it the same way. The remaining three acres was an oat stubble, the latter we did not get at until we had planted the first two fields; then we manured it over with barnyard manure, but never got it planted until the 21st of June. We did not expect anything but corn fodder, but we got 170 acres of good hard corn from the three acres—very satisfactory to me considering the late planting. The two fields first planted did not come up well, only about two-thirds of it coming up at all. When it was about four inches high we dragged it over both ways, with a heavy drag, and then replanted with an early kind of corn. It came up good, and there was but very few missing hills in the whole field. After this we kept the cultivator at work, not letting any weeds grow, and about the 10th of September started to drill in wheat, with a one horse drill, putting five rows between each row of corn, and one bushel to the acre. We put in twenty-one acres with wheat and six to rye. At husking time we found we had 1,800 bushels of corn and 12 fair sized stacks of fodder. Now the land is covered with wheat and rye, not so large as my neighbors because not sowed so thickly. In the spring I intend to give it two or three draggings with a smoothing harrow, and at harvest time will let you know the result of our labor.

Our number of bushels of corn is not equal to that reported by Mr. T. Y. Lucas of Montcalm County; but we had no pine stumps to pull and haul away (see his article in FARMER of January 17). He did not give the expense of getting his land as it is, but tells us what his crops have been and the good price he got. It may be that the expense of pulling and hauling away of the 250 stumps will take a good deal of his corn crop. I spent, at one time in my life, a summer working among pine stumps. I know what they are; and as I recall the close of his letter, he invited Battle Creek farmers to move north. My advice to them is to stay where they are.

Yours truly,

JOSEPH BRIDGE.

UNADILLA, Mich.

A SUBSCRIBER at Lafayette, Mich., sends the following as a sure method of raising good crops of plums: Inclose a piece of ground adjacent to the hen house with a high picket fence, and set out plum trees in it. Keep the hens in the enclosure during the season of the curculio's ravages, and a crop of plums annually will be the reward of the pains and outlay. The remedy is a good one, and has been used by plum-growers for years. Whether it is so thoroughly efficacious as this correspondent thinks is open to debate. However, in the vicinity of Detroit we know two parties who have tried it for years and declare it eminently satisfactory, as they never have had a curculio since they turned their fowls into their plum orchards.

Wheat After Corn.

To the Editor of the Michigan Farmer.

I saw in a recent number of your paper, taken from the Ohio Farmer on putting in wheat after corn. I see that the writer does not know how to do it. He speaks of the corn rotting in the shock. The wheat must be put in before the corn is cut and the corn left standing till it is fully ripe. I admit that if at cutting time the corn is put in large shocks it will kill some of the wheat; but if it is put in small shocks and husked soon I could never see any difference at reaping time between these places and the rest of the field, for the wheat stools out and fills out these bare spots. He calls it a slovenly way of farming. I wish he would just step over the State line into Washtenaw County, so that I could show him my twenty-two acres of wheat and six of rye growing with the corn stumps standing. How the corn stalks poison the ground I cannot understand. How is it that some of our best farmers plow in green corn, rye, buckwheat, rape, etc., to improve their land? If this poisons the land I think it would very soon be stopped. In my fields the stools of wheat grow close to the standing corn stumps, and I think it is because the young roots of the wheat get hold of the decayed roots of the corn. I can count as many as twenty spears on one root that will each make an ear.

If that Ohio farmer would put manure on his land and plow it in about five inches deep, plant his corn about four by four feet apart, keep weeds and pumpkins out of his corn, put in his wheat before his corn is cut, in the spring give his wheat two good draggings, one before he sows his clover seed, and one after, I think he will have corn, clover and wheat, to sell and keep. JOSEPH BRIDGE, UNADILLA, Mich., Feb. 24th, 1882.

Poetry.

MY NEIGHBOR'S WINDOW.

Across in my neighbor's window
With its droppings of satin and lace,
I see 'neath its flowing ringlets,
A baby's innocent face.
His face is as pure and handsome
As the baby's over the way,
And he keeps his heart from breaking
At my toiling every day.
Sometimes when the day is ended,
And I sit in the dusk to rest,
With the face of my sleeping darling
Hugged close to my lonely breast,
I pray that my neighbor's baby
May not catch heaven's roses all,
But that some may crown the forehead
Of my loved one as they fall.
And when I draw the stockings
From his little weary feet,
And kiss the rosy dimples,
In his limbs so round and sweet—
I think of the dainty garments
Some little children wear,
And that my God withholds them
From mine so pure and fair.
May God forgive my envy—
I know not what I said;
My heart is crushed and troubled—
My neighbor's boy is dead!
I saw the little coffin,
As they carried it out to-day,
A mother's heart is breaking
In the mansion over the way.
The light is fair in my window;
The flowers bloom at my door;
My boy is chasing the sunbeams
That dance on the cottage floor.
The roses of health are blooming
On my darling's cheek to-day,
But the baby is gone from the window
Of the mansion over the way.

MARCH.

Ah! early March! you've come again,
With sleet and snow, and hail and rain.
Cold earth beneath, dark sky above you—
What have you, pray, to make us love you?
No month in half so rough as you;
December winds less harshly blow.
What cheerful ways! What storm-tossed tresses!
Your presence every one distresses.
Haste! Haste away! We longing wait
To greet fair April at your gate.
Cold earth beneath, dark sky above you—
Surely you've come to make us love you!
"Ah! see these blossoms!" he replied,
"Tossing his hair—our dear old friend."
"Though other months have flowers a-many,
You are not mine as fair as any."
See! peeping from each dusky fold;
The crocus, with its cap of gold;
Violets, snowdrops, white and stilly;
Sweeter than any summer dilly!
And underneath the old oak leaves
Her fragrant wreath the arbutus weaves.
Whatever sign may be above me,
Surely for these hearts will love me!

Miscellaneous.

THE THEFT OF THE STAYS.

"Hal knows a good story."
It was little Buddleton, the Ensign, who spoke. There were about half a dozen of us sitting together on the deck of the troopship *Leviticus*. We were returning home from the Cape, and used to collect here in the cool of the evening, with pipes and glasses, and amuse each other by telling stories. A great many stories were told during the pleasant voyage home, we being idle and without cares, and the circumstances and conditions of our twilight symposium stimulating to the inventive faculties. It followed, as an incidental, if not a necessary result, that many of the stories were legendary, the element of truth being, I regret to say, less highly prized than that of ingenuity in the matter of a racy plot and a satisfactory finale. The story which follows has no plot to speak of, and it is for the reader to say whether the finale is satisfactory or the reverse; but good or bad, it forms an exception to the majority of those which were related on the deck of the *Leviticus*, in that it has a foundation in fact.
"Hal knows a good story," said little Buddleton, commonly called Buddy, as he squatted on the deck, with his comical tumpy figure and comical big head, puffing tremendously at a short clay pipe.
"What's it about?" said the captain, who fingered his cigarette in a delicate manner.
"It's about stays, isn't it, Hal?" said Buddy.
"Don't Buddy; now, don't," pleaded Harold, Lieutenant Harold, who was handsome and shy, and never liked to be called on for a story. "Not that story; I'll tell you another quite as good."
"Stays or nothing, old man," persisted Buddy, and a peremptory chorus of "Stays or nothing, old man!" rose on the still night air.
"But it would distress me to tell that story," again urged Harold. "I wouldn't have it repeated for the world; the lady is my sister's great friend. She is married now; she mightn't like it."
"All good men and true here," put in the captain. "Change the names, and there's no harm done."
"We will be mute, we swear!" said Buddy; and the chorus went up: "We will be mute, we swear!"
"Well, then," began the lieutenant, sadly but resignedly, "to commence with, the widow was the sweetest widow that ever lived."
An inarticulate hum of content rose from the group of listeners; and Buddy filled his pipe, closed his eyes with an air of pleased expectancy, and murmured, in a soft, parenthetical manner, as he stretched his inconsiderable length upon the deck: "All widows are jam."
"I know her intimately," pursued Harold.
Buddy took the ebonyized clay from between his lips, winked at it solemnly, and replaced it.
"I visited her frequently at her house; she gave the pleasantest little parties in the world—bachelor parties mostly, but sometimes they were of both sexes, and very often," continued Harold, hurriedly, for the captain was shaking his forefinger at the whisky bottle; "and very often

men took their wives with them. There were little meetings for supper after the theatre, when we smoked cigarettes, and played quiet rubbers, and sang quiet songs, and told quiet stories, and were all very pleasant, and quiet."
"And quiet," said Buddy, in a soothing tone to his caddy; "they were pleasant, and quiet."
"She lived in the west end of the town—it might have been in Bayswater, it might have been Kensington, it might have been in Belgravia; that doesn't matter to you fellows—in a small exquisitely furnished house, with nice books and dainty pictures; and she was the sweetest little widow that ever lived."
"Give a name to this widow," said Buddy; "that we may breathe it tenderly, when night falls gently on the silver sea."
"I will give to the lady," said Harold, "the name of Cronin. One day," he went on, "I called at her house to arrange some details connected with a subscription she was getting up in aid of a poor chorus singer at the opera. Mrs. Cronin was not at home; but the maid said she would return shortly, if I liked to step in and wait. The maid knew me well, of course."
"She knew him well," said Buddy sotto voce.
"I went in, and was shown up into the little drawing room on the first floor. How well I remember that room! Where a snugger it was! Flowers everywhere, and the light falling pleasantly through the Indian curtains, and an alcove, behind which you heard the cool drip of a miniature fountain; and the newest magazines and the last book of poems on the little table by the fireplace. I waited, but she did not come. I rang the bell, and the servant (what neat servants she always had) assured me that her mistress must return in a moment. I waited, but she came not, and I must go. I looked about for pen and paper to write a line, and crossed the room to the escritoire that stood beside the sofa. Something peeping out from the pillow of the sofa caught my eye. I looked at it curiously, and retreated a step. I looked at it eagerly, and went two steps nearer. Could it be? No, it could not and yet it must! It should be, and it should not be. It is not. Is it! I caught at the silken strings that hung over the edge of the sofa; I gave it a twitch, and I held dangling in my hand a pair of stays!"
"Go slow, Hal; go slow, if you love me," said Buddy, in an excited tone.
"I tell you," said the lieutenant, his feelings also rising, "I tell you that I held in my hand a pair of stays. How shall I describe them, for I had seen no such things before?"
"Buddy put his hand to his mouth and coughed; and Smith, the other ensign, gulped and swallowed his smoke.
"I cannot adequately describe them, and yet I see them now. Have you fellows ever seen any stays? You never saw stays like these; there is not such another pair in the world. Divine things, I see you now! Satan stays, of heaven's own hue, touched here and there with knots of a darker shade. I am not naturally eloquent; but I said eloquent things while I held those stays. My fingers trembled as I touched the curved sides, which had been moulded to a form that Hebe would have envied. I took them gently, I caressed them, I believe I touched them with my lips. Gentleman; I was 19 and she was my first love; it was a moment of sore temptation."
"Ay, of sore temptation!" said Buddy sympathetically.
"I don't know how long I stood there with those dear things in my hand, but the striking of the clock reminded me that I was too late to keep an appointment that I had elsewhere. Scarcely knowing what I did, I secreted my prize under my coat, and, leaving no message, and dreading to meet the maid on the stairs or in the passage, I ran down quickly, caught up hat and stick, left myself out of the door, and bolted for my chambers. I had the little sky-blue treasure under my coat, and I pressed it closely to me as I ran, rather than walked, through the streets to my rooms in the neighborhood of Piccadilly. Arrived there, I locked the door, and took out the stays. As I looked at them I felt more like a poet than I have ever done before or ever done since. They would have inspired a hermit or a director of a railroad company; and they inspired me, though not in verse. A mad suggestion came to me to measure that precious article. I knew that though the widow's form was of enchanting fullness, her waist was slender as a girl's; but something tempted me to know its size in inches. I laid a tape measure across the satin, placing my finger in the centre to hold it. Hal! what is this? A tiny oil-skin bag, fastened on the inner side, just at the spot where Hebe's tender heart should throbb, and something inclosed in it. Another mad suggestion, a penknife, a hasty slit in the oilskin, and out dropped a Bank of England note for £20."
The bells sounded for change in the watch. It was a summer's night of delicious coolness. The still waters of the sea shone with a soft and soothing radiance, and behind us was a phosphorescent glow. Although we were sailing many knots an hour, we knew not the motion of the vessel; we might be lying at anchor in some still bay.
Buddy replenished his own and the other glasses, and suggested that the break which the lieutenant had involuntarily made in his story offered a favorite opportunity for a moment's meditation on the extravagance of youth.
After a pause the lieutenant proceeded with his story.
"For a few moments," said Harold, "my mind seemed to cease working. I did not know in the least where I was or what I had done; I had no power of thought. Then I roused myself, and the first distinct notion that crossed my mind was that I was an idiot. My rashness had placed me in a fix from which for a moment I did not understand how I should escape. It was clear that I had stolen also Mrs. Cronin's stays, and equally clear that in stealing the stays I had stolen also a bank note for £20. Then the comical element in the situation asserted itself, and I wanted

to laugh. But I checked myself, for I seemed on a sudden to see the merry mocking face of the widow, and my own merriment was converted into shame, as I heard in fancy the ringing laugh of Mrs. Cronin. I should have to carry those stays right back again and confess my sentimental folly to the lady, and she would laugh at me for the rest of my days."
Even then, as he told the story, the lieutenant was overcome by the memory of his humiliation; and Buddy, observing his downcast and sorrowful looks, pushed the bottle toward him in mute sympathy.
"It needed time to summon courage," he went on again, "and I could not go at once. I placed the stays, which seemed now to be mocking me, as I felt sure their mistress would, tenderly away in the cupboard, and looked the door and threw the note into my desk, and went out and took my horse for a gallop in the park."
"Hal, old man, I have promised Mrs. Cronin £20 for her subscription list; must give it to her this afternoon. Have nothing to bless myself with but the bad half sov., with a hole in it, that Polly Dingle gave me. Came to borrow of you, found the very thing in your desk; pay you tomorrow or next day."
"Tom."
"Panick! I never knew what panic meant before. Don't you see what had happened? My confounded brother, dear old Tom, was going to give to Mrs. Cronin the very infernal note of which I had robbed her. Probably by this time the theft was discovered; the people at the bank communicated with; some innocent creature—perhaps little Mary, her housemaid, the honestest girl alive—might be suspected, even accused; for Mrs. Cronin would never imagine the idiotic truth of the matter; and there was that Tom walking off to her with the very note as cool as you please; and she would of course recognize it at once. But he must be stopped. Perhaps he had not started. No cab horse ever went like the beast that carried me. The cabman said he was an old hunter, and I should suppose he wondered what new sort of a hunt he was in then; for the man screamed at him from his perch and I bellowed from within and we didn't wait to ask after any of the people whom we knocked over on the road. But I was too late. You may be very sure of that. The hand of fate was in it. I was not going to be let off cheaply in that way. I had got to go right through with this business, and smart for my idiocy. Tom had gone just 10 minutes ago, and he had gone to Mrs. Cronin's. Of course he had; where else should he go? There was but one place in all the world to which he could have gone with that £20 note—to Mrs. Cronin's. And that was the place I must go to. Why didn't I go at once? Because I was a kind of miserable coward, and stood there wondering whether I hadn't better go and sink my stupid body in the Serpentine. If I had been bold and started off at once, I might even have, on the supposition that Tom would walk, have been first at Mrs. Cronin's and stopped him at the door. I looked at the horse that had brought me to Tom's, and saw that he would do no more galloping that day. Then a horrible baseness came over me, and I thought I would leave Tom to explain as best he might to Mrs. Cronin, and I would sneak in when the breeze had settled. I took the longest possible way to the house; I went down blind alleys, and pretended that I was surprised when I came to a blank wall, and had to go back again. I staid to witness every stupid performance in the streets, and emptied my pockets of small cash on all the lame blind and deaf impostors whom I could prevail to tell me the entire history of their misfortunes. The day was waning when I got to the square in which Mrs. Cronin resided.
"You may think that, once arrived, I should have had moral courage enough to carry me straight to the widow's presence, and face the matter out with a good heart. You are wrong. I hadn't any kind of courage, moral or physical, about me. I stood for five minutes on the doorstep before I pulled the bell, and I pulled it with a miserable indecision that gave me a moment's hope there would be no effect on the wire, when I would have lied to myself that the house was empty, and crawled home again. But there was a step in the passage, and the door was opened. Was Mrs. Cronin at home? Yes, she was. But she was engaged, no doubt? It was an inconvenient hour; I would call again; I really had nothing of importance to say; I would leave a card. Did I think I was going to escape this way? Mrs. Cronin was not engaged—that is to say, there was no one with her but my brother; and the cook, between whom and myself this interview was taking place, believed that Mrs. Cronin was particularly anxious to see me. Would I be so good as to step up stairs to the drawing room? Up those stairs, down which my madness had carried me headlong not six hours before, I now walked with the cheerfulness of one who expected to meet the headsman on the landing. No sound issues from the drawing room; but I knew there were persons there. There were no voices within as the cook opened the door and introduced me. An oppressive calm seemed to have settled on the assembly. I had expected a noise, but this was worse. Mrs. Cronin stood beside the fireplace and looked confused. Tom faced her and looked puzzled. Mary, the housemaid, stood behind them and looked stupid. I came in, and looked corpse-like. The bank note for £20 was in the hand of Mrs. Cronin.
"The very note—the note itself," she said. "The identical note which Mary came crying to say she had lost four hours ago—lost along with a pair of stays, into the lining of which she had stitched it."
"Mary!" I gasped inwardly, "Mary lost that note! Mary stitched it into the stays! What new horror is this?"
"Here is the note back again, which is the main thing," said Mrs. Cronin; but the odd part of the business is that I get it from Tom; and older still, Tom tells me that he gets it from Hal, or at least from Hal's chambers, where he had gone to borrow such a sum from him. Why, we have just put the police on the track of an

innocent piano tuner, who was here ten minutes before Hal came this morning. But surely we need have no more mystery now. Here is Hal; he will explain."
"Yes, Mrs. Cronin," I said, "I think I can explain, and I looked at Mary, for I could not tell my wretched story while she stood there to help in the laughing."
"Mrs. Cronin, with true womanly tact, turned to Mary and told her she might run to the police station and tell them to take no further steps in the matter for the present."
"Now, Hal," she said, when Mary had reluctantly closed the door behind her, "where are those stays?"
"Mrs. Cronin," I said, "the stays are locked in a cupboard in my room."
"Good gracious, child, what are they doing there?"
"And then, in weak and faltering tones, I began my confession."
"Begin, I say, for I had scarcely hinted how, on discovering the stays, I had in an instant loved them for their mistress's sake, and borne them away, not knowing what I did, before the blue eyes of Mrs. Cronin commenced to sparkle, and the corners of her sweet mouth to quiver, and the whole of her dainty form to tremble in an effort to keep down the laughter that was coming. And then it came. She laughed. It was not her face only that laughed; she laughed all over."
"Go away, both of you," she said, "I shall break in pieces; Hal, you'll kill me. Make me stop laughing, or I shall be dead in five minutes."
"And then when she had gained a moment's self-control, she said:
"But Hal, those weren't my stays at all."
"And then she began again, and Tom after her. I never saw anybody laugh until then."
"Not yours, Mrs. Cronin?" I gasped; "not your stays?"
"Not mine a bit, Hal. They were Mary's. I gave them to her. I never wore them once. O, Tom, don't, can't you stop? Did you kiss them, Hal? I'm very sorry, but I must laugh; it's too funny. What did you say was the color of those stays, Hal? Poor Hal rhapsodizing over Mary's stays!"
"I thought Mrs. Cronin would have done herself an injury. In between the fits she went on again:
"Mary was stitching in the thing this morning in this room, where she had no business to be—the piano man came—she hid them hurriedly under the seat somewhere, where you found them—Tom, there's my vinaigrette behind you."
"And Hal said no more; and we all sat silent and felt for him."
By-and-by Buddy said:
"Is that widow still a widow?"
"No," said Hal sadly; "she married the Honorable Tom six months afterward."
And Hal sighed; and we all sighed with Hal.
"The day is breaking," presently said the captain; and we went below.—*Tinsley's*

High Players and Livers.

When M^{re} de Maintenon asked the "grand monarque" (Louis XIV) for money for the poor, he replied: "A king gives alms by spending a great deal." ("Un roi fait laumone en depensant beaucoup.") If this was charity, the financiers of his time were eminently charitable. Bretonville, a farmer receiver general, had a hotel so splendidly furnished that it was an object of curiosity to strangers. His income was computed at £120,000 a year. Fouquet's country house at Vaux was a foreshadowing of Versailles. He spent 9,000,000 livres (Colbert said 18,000,000) in it, and razed three villages to the ground to round off the domain. The lead used for the pipes to supply the fountains and the images was sold by a subsequent proprietor for 500,000 livres. The banquet to the king and court at this place cost 120,000 livres. The service, comprising 30 dozen plates, was of gold. The impudence of the display amounted to fatuity, and not content with rivaling his young sovereign in magnificence, he presumed to rival him in love. An object that fixed the royal gaze in going over the chateau was a miniature of M^{lle} La Vallere. The arrest of Fouquet was a foregone conclusion before his personal expenses had annually amounted to many millions of livres, without reckoning donations to lords and ladies about the court. It was the policy of Louis XIV. to encourage extravagance. "The best mode of pleasing him," says St. Simon, "was to go in for it in dress, in title, in equipage, in play. He thereby little by little reduced everybody to depend upon him for subsistence. The princes and nobles fell into the trap. When Conde gave the grand entertainment at Chantilly, immortalized by the death of Vatel, his debts amounted to 8,000,000 livres, including a tailor's bill of 300,000. The entertainment cost 180,000 livres; there is an item of 3,000 crowns for jonquils. The rage for play required no encouragement. It was as high as it could well be during the king's minority, when we are told of Herault, Mazarin's banker, losing 100,000 crowns at a sitting. It was the proper thing to pay in Louis d'or. Rohan, not having enough to make up a sum, offered 200 pistoles to the young king, who refused to receive them. "Since your majesty will have none of them," exclaimed Rohan, "they are good for nothing," and he threw the whole of them out of the window. Further on in the reign "le jeu de la Montepan" became proverbial. The favorite was known to win or lose more than 70,000 crowns in a night; and the king as well as the lady grew angry when her stakes were so high that the courtiers refused to close with them. "Continue," was the king's orders to Colbert, "to do whatever M^{re} de Montepan wishes." On her wishing for a chateau at the gate of Versailles he bought for her the ancient mansion of Clagny, which at the first glance she declared fit only for an opera-girl, and ordered it to be pulled down. Another property was added to it; a chateau, with pleasure grounds to correspond,

How Mosaic Pictures are Made.

The guardian in the velvet skull cap came to my aid, when I was at fault, with most courteous explanations. He mentioned incidentally that, in a portrait of Pope Pius V., there were one million seven hundred thousand pieces, each one no larger than a grain of millet; but this statement I take to have been mainly guesswork. The enamel, he proceeded to tell me, is a kind of glass, colored with metallic oxides, and it is so fusible that it can be drawn into threads, small rods, or oblong sticks of varying degrees of fineness, slightly resembling the type used by compositors. These polychromatic rods are kept in drawers properly numbered, so that the artist always knows to which case to repair when he requires a fresh supply of a particular tint or tints. When the picture is commenced, the first step is to place on the easel a slab of marble, copper or slate of the size fixed upon; and this slab is hollowed out to a depth of about three and a half inches, leaving a flat border all round which will be on a level with the completed mosaic. The excavated slab is intersected by transverse grooves or channels, so as to hold more tenaciously the cement in which the mounts of enamel will be imbedded. Then the hollowed slab is filled with "gesso," or plaster of Paris, on which the proposed design is accurately traced in outline, and usually in pen and ink. The artist then proceeds to scoop out a small portion of the plaster with a little sharp tool. He fills up the cavity thus made with wet cement or "mastic," and into this mastic he successfully thrusts the "spicula" or the "tessera," as the case may be, according to the pattern at his side. In the broad folds of drapery or in the even shadows of a background or a clear sky, his morsels of enamel may be as large as one of a pair of dice; in the details of lips or eyes or hair, or foliage, or flowers, the bits of glass may be no larger than pins' heads.
The cement, or mastic, is made, so far as I could gather from my informant, of slaked lime, finely powdered Turbentine marble and linseed oil, and when thoroughly dry is as hard as flint. Sometimes the mastic which fills the cavity is smoothed and painted in fresco with an exact replica of the pattern, and into this the bits of glass are driven, according to tint, by means of a small wooden mallet. If the effect produced wounds the artist's eye, he can easily amend the defect by withdrawing the offending piece of enamel and driving in another while the cement is still wet; and, by observing proper precautions, it can be kept warm for more than a fortnight. When the work is completed, any tiny crevices which may remain are carefully plugged or "stopped" with pounded marble, or with enamel mixed with wax, and the entire surface of the picture is then ground down to a perfect plane, and finally polished with putty and oil. Byzantine may be broadly distinguished from Roman mosaic by the circumstance of the surface of the former being left unground and unpolished—save where there is burnished gold—thus leaving an irregularity of surface productive of great vigor of style. A virtuous picture of the Byzantine style can at once be recognized as a mosaic, even if it be hung at an altitude of a hundred feet from the ground; but a perfected mosaic picture, after the Roman manner, might easily be mistaken, even at a very short distance,

for a very elaborately finished and highly varnished painting in oils.—*London Telegraph*.

A New Food Fish.

There are three kinds of carp. There are the scalp carp, the carp proper, called by the Germans "edekarpfen," secondly, the leather carp, or "lederkarpen," from Bohemia, which has the most delicious flavor of the three varieties; and lastly, the mirror carp, or "spiegelkarpen," also from Bohemia. The carp proper has a sucker's mouth, and lives by suction; it has twelve rows of scales between the ventral and dorsal fins; it is a golden olive brown color above, and yellowish beneath. The mirror carp is so called because it has only three rows of scales from head to tail. There is nothing like it in our waters, and it is really beautiful when taken fresh from the water, with its broad broken scales or mirrors flashing in the sunlight. The scale carp or carp proper, has small, fine scales. The leather carp has only one row of dark scales along the back, and all the rest of the body is a leather-colored skin. All these carp are very hardy, and you can carry them any distance in a rag or moss if you will only keep them moist. Nothing just now is of so widespread interest in fish culture as carp raising. Every farmer or retired merchant who owns a pond wants to go to producing carp. They vary in size from six inches to two and a-half feet in length, and from a pound to eighteen pounds each. They are in season for eating from October through the winter and to April. From Georgia comes an account of the largest carp yet grown in America. Mr. E. Witrowsky, in Atlanta, in cleaning out a pond in which he had put four little carp a year ago that were then two or three inches long, found that these four carp had grown to be twenty, twenty-two, twenty-four and twenty-five inches in length, and the twenty-five inch fish weighed seven pounds. Now, you will see the rapidity of the growth of this carp when I tell you that a brook trout requires two years to grow to half a pound. To speak of a case nearer home, a gentleman recently showed me two carp that grew, in a pond near Brooklyn, from half an ounce to two pounds in ten and a half months.
Marsh and waste lands are easily prepared for the culture of carp. An acre devoted to this purpose is the most profitable investment that a farmer can make. It is a curious fact that farmers assiduously and intelligently cultivate their land with both capital and labor, but they uniformly neglect the sheets of water on their estates. If they should take the trouble, they could sell carp, two, three and more years old that might alone be a means of support when their land crops would be damaged or spoiled on account of too hot or too dry seasons. To raise a carp a number of ponds are required, viz: one for young fry, one for the growing carp and one for wintering the carp. The two former may be shallow; the latter must be eight feet deep. This is in order that the carp may burrow in the bottom of the pond. The hatching pond should be from a quarter of an acre to two acres in extent, and two to four feet deep. From two to three spawning one or two mothers are necessary, to which should be added a yearling male, weighing half a pound. If carp have good water, a clayey and rich bottom, and are not too much crowded with other fish, they will weigh upward of two pounds in the autumn of the third year.—*N. Y. Sun*.

A "Cotton" Lecture.

Mr. J. B. King gave a lecture before the Young Men's Christian Association, of Richmond, Va., on cotton, it being the first of a series of commercial lectures to be delivered this season. He said: The history of cotton carries us back to the remotest ages of antiquity, it being mentioned by Herodotus as early as 450 years before the Christian era, while it must have been known and used in India for centuries before. Its original home was upon the banks of the Indus and Ganges, where, with the rudest distaff and spindle, it has been manufactured so delicately as to be almost transparent, and so light as to be called "webs of woven wind." Alexander the Great first introduced it into Europe as an article of commerce. Its progress was then traced through the Middle Ages into its development as the greatest industry of modern times. The cotton plant was then described, with the essential conditions of its successful growth, the methods of planting, picking and preparation for the market. While silk, wool, and all other materials for clothing and kindred purposes are limited in the geographical extent of their use, cotton is almost universal in its adaptation, and stands almost alone at the head of textile industries. The principal cotton producing countries, in order of production, are the United States, India and Egypt. The story of the cotton interest in this country was graphically told from its first planting in 1621. The great influence of Whitney's invention of the cotton gin was shown as having wonderfully increased its mercantile importance. Most interesting figures were given regarding the magnitude of the crop of 1881, which was valued at \$300,000,000. If it had all been made into common calico, 28 inches wide, it would have reached around the world 438 times, or over 12,000,000 miles, and if spun into thread as fine as has been manufactured, it would have extended further beyond the sun than the sun is from the earth.—*Industrial South*.

AN ENGRAVED DIAMOND.—Mr Bryce-Wright has lately received a very remarkable historical stone. Previous to the fall of Delhi, at the time of the Indian mutiny and the looting which subsequently took place, this ring was kept in the treasury of the Mogul emperors of Hindoostan, where it had been preserved for many years. The ring itself and the back of the oval shield-shaped table which is affixed to it, is most beautifully enamelled with a floriated pattern in red, green, blue and yellow on a white ground, the whole set in an Indian gold framework. The face or upper surface of the table is composed of a floral or foliated design in green and blue enamel, having for its central ornament an engraved diamond surrounded by twelve others varying in size. The interest of the whole work centres upon this stone, it being one of the very few known diamonds that are cut or engraved. Indeed, only about five are in existence, and of these it should be said that the European ones are more properly ground by the wheel than engraved by purely manual labor. The stone is the work of a Persian artist and bears a monogram composed of two Arabic words interlocked together, making up the invocation, "O Ali!"—*[London News]*.

EQUATORIAL AFRICA.—An interesting relief map of Equatorial Africa, made by Mr. James B. Jordan, of London, is now exhibited at the rooms of the British geographical society. The horizontal scale is one inch to twenty-five miles, and the vertical one inch to five thousand feet. The construction of the relief was a work of nearly twelve months. An accurate map had to be made on a given scale from carefully collected data; this was transferred to clay by a kind of pantograph of Mr. Jordan's (senior) invention, a cast taken, and the present relief map constructed of papier-mache. There were several reasons for making it of this material; one, its lightness would enable it to be hung like a picture; another, the impossibility of its cracking and chipping as clay does; it represents nature better, and it can be easily repaired if the housemaid pokes a hole through it with her brush. When looked at in the light striking upon one side, the aspect of Africa in the interior is no longer the barren waste of the maps of fifty years ago; the interior, with its deeply set lakes and the swelling lands round them, looks as if it could not but be inhabited by human beings, and it is so. All the data as to altitudes, latitudes, longitudes and sections were taken from the accounts of the several travellers who have discovered or visited the interior.

THE ST. GOTHARD TUNNEL.—The St. Gothard tunnel is now daily traversed by eight trains, four each way. Touching solidity of construction, the tunnel leaves nothing to be desired. The official inspectors express themselves perfectly satisfied with the condition of the work. Particular attention was paid to the windy stretch, which has caused so many trouble and given rise to so many fears, but the massive granite masonry with which the part of the passage is stayed seems admirably adapted to its purpose, and shows no sign of yielding to the immense pressure that weighs upon it. The ventilation is good, and no inconvenience was experienced from the temperature. The tunnel is lighted with lamps placed a kilometre apart.

THE new five cent Garfield postage stamp will be ready for issue on March first. Dark brown has been selected as the color best calculated to bring out the fine engraving of the work. The five cent stamp is almost entirely used for foreign correspondence; and Third Assistant Postmaster, General Hilsen, believing that an accurate engraving of the late President should be used for this purpose, has succeeded in producing what is pronounced to be the best likeness of General Garfield, and the handsomest stamp yet issued by the Postoffice Department.

THE imitation gems now produced in Paris by chemical means so nearly resemble the genuine article that even connoisseurs cannot readily distinguish them without the use of scales or files. The following oxides supply the coloring substances employed: Gold, for purple; silver, for yellowish green; copper, for bright green; iron, for pale red; cobalt, for blue; tin, for white; manganese, in small quantity, to make the glass devoid of color—in a larger to give it an amethyst hue—and in great quantity to make it black and opaque; antimony, for reddish hyacinth color.

LEGISLATIVE jobbery has its headquarters in the Empire State. The new capital at Albany was originally to cost \$4,000,000. It has had \$16,000,000 spent upon it and will take \$4,000,000 more to complete it. When finished, no speaker can be heard in the legislative chambers. The other job is the great bridge connecting Brooklyn and New York. Its original cost was estimated at \$3,000,000. Thirteen millions and half have been spent upon it and two more will be needed.

The statistics of the Cuban cigar industry reveal a very curious fact. It is, that more cigars are exported annually than the island produces. During one year the figures published by the local authorities showed that 13,000,000 cigars were exported in excess of the number that could be manufactured from the quantity of leaf grown.

